

(12) United States Patent Struzinski

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(54) TARGET TRACK CROSSING PREDICTION/ DETECTION

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(57)**ABSTRACT**

A method and system are provided for predicting and detecting the crossing of two target tracks in a bearing versus time coordinate frame. The method/system use a series of periodic bearing measurements of the two target tracks to determine a bearing rate and a projected intercept with a bearing axis of the bearing versus time coordinate frame. A crossing time t_c for the two target tracks is determined using the tracks' bearing rates and projected intercepts. A prediction that the two target tracks will cross results if a first inequality is satisfied while a detection that the two target tracks have crossed results if a second inequality is satisfied.

18 Claims, 2 Drawing Sheets

